WHAT IS CLAIMED IS:

1. An asymmetrical multiprocessor system comprising a plurality of processors for executing a plurality of unit jobs, workloads for which are foreseeable, the unit jobs being allocated job by job to the plurality of processors, at least a first processor and a second processor being asymmetrical to each other, the asymmetrical multiprocessor system comprising:

unit job processing information generating means for generating unit job processing information, which is used as reference information when the unit jobs are allocated to the plurality of processors; and

unit job scheduling means for determining, in accordance with the unit job processing information, in what order the unit jobs are to be executed, and to which processor the unit jobs are to be allocated.

2. The asymmetrical multiprocessor system as set forth in claim 1, wherein:

at least one of the unit jobs is executable for the first processor and the second processor in accordance with programs that are different from each other.

3. The asymmetrical multiprocessor system as set forth in claim 1, wherein:

the unit job processing information includes information about power consumption of each of the processors; and

in accordance with the information about power consumption, the unit job scheduling means determines to which processor the unit jobs are to be allocated, determination being done in such a manner that the power consumption is reduced.

4. An asymmetrical multiprocessor system as set forth in claim 1, further comprising:

mode switching means for switching each processor between an operation mode and a power-saving mode, in accordance with a result of a process performed by the unit job scheduling means,

the operation mode being a mode in which the processor is enabled to execute unit jobs, and

the power-saving mode being a mode in which power consumption is lower than in the operation mode.

5. The asymmetrical multiprocessor system as set forth in claim 1, wherein:

a memory for the first processor and a memory for the second processor have memory capacities that are different from each other.

6. The asymmetrical multiprocessor system as set forth in claim 1, wherein:

the first processor is capable of executing an instruction set for executing unit jobs; and

the second processor is capable of executing at least an instruction subset that is a part of the instruction set.

7. The asymmetrical multiprocessor system as set forth in claim 1, wherein:

the unit job processing information includes (i) information, with respect to each unit job, about an estimated value of time required for processing the unit job, (ii) information about dependency relations between the unit jobs, and (iii) information, with respect to each unit job, about which processor is capable of executing the unit job.

8. The asymmetrical multiprocessor system as set forth in claim 1, wherein:

the unit job scheduling means determines, at least at an end of each unit job, in what order the unit jobs are to be executed.

9. The asymmetrical multiprocessor system as set

forth in claim 1, wherein:

the unit job scheduling means performs (i) a process of extracting the unit job executable for one or more of the plurality of processors, (ii) a process of extracting the processor that is not yet scheduled which unit job to execute, and (iii) a process of allocating, to the processor extracted, the unit job executable for the processor extracted.

10. The asymmetrical multiprocessor system as set forth in one of claims 1 and 2, wherein:

the unit job scheduling means allocates a unit job to the second processor, which is capable of executing at least the unit job, preferentially over the first processor, which is capable of executing more kinds of unit jobs than the second processor is.

11. The asymmetrical multiprocessor system as set forth in claim 6, wherein:

the unit job scheduling means allocates a general-purpose job, among the unit jobs, to the second processor preferentially over the first processor, the general-purpose job being a job executable for the first processor and the second processor.

12. The asymmetrical multiprocessor system as set forth in claim 1, wherein:

the first processor is capable of executing an instruction set for executing unit jobs;

the second processor is capable of executing at least an instruction subset that is a part of the instruction set; and

an exclusive job, among the unit jobs, is allocated to the first processor preferentially over a general-purpose job and an asymmetrical job,

the exclusive job being a job executable only for the first processor,

the general-purpose job being a job executable for the first processor and the second processor, and

the asymmetrical job being a job that is executable for the first processor and the second processor, and that requires different time for execution by the first processor and the second processor because programs executed are different.

13. An image processing apparatus, comprising

an asymmetrical multiprocessor system, including a plurality of processors for executing a plurality of unit jobs, workloads for which are foreseeable, the unit jobs being allocated job by job to the plurality of processors, at

least a first processor and a second processor being asymmetrical to each other, the asymmetrical multiprocessor system including:

unit job processing information generating means for generating unit job processing information, which is used as reference information when the unit jobs are allocated to the plurality of processors; and

unit job scheduling means for determining, in accordance with the unit job processing information, in what order the unit jobs are to be executed, and to which processor the unit jobs are to be allocated.

14. An image forming apparatus comprising an image processing apparatus, including

an asymmetrical multiprocessor system, including a plurality of processors for executing a plurality of unit jobs, workloads for which are foreseeable, the unit jobs being allocated job by job to the plurality of processors, at least a first processor and a second processor being asymmetrical to each other, the asymmetrical multiprocessor system including:

unit job processing information generating means for generating unit job processing information, which is used as reference information when the unit jobs are allocated to the plurality of processors; and

unit job scheduling means for determining, in accordance with the unit job processing information, in what order the unit jobs are to be executed, and to which processor the unit jobs are to be allocated.

15. A unit job processing method using asymmetrical multiprocessors for executing a plurality of unit jobs, workloads for which are foreseeable, the unit jobs being allocated job by job to the asymmetrical multiprocessors, the asymmetrical multiprocessors including at least a first processor and a second processor, which are asymmetrical to each other, the unit job processing method comprising the steps of:

generating unit job processing information, which is used as reference information when the unit jobs are allocated to the plurality of processors; and

determining, in accordance with the unit job processing information, in what order the unit jobs are to be executed, and to which processor the unit jobs are to be allocated.

16. The unit job processing method as set forth in claim 15, wherein:

at least one of the unit jobs is executable for the first processor and the second processor in accordance with

programs that are different from each other.